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10/057,364	01/24/2002	Tomoya Yoshida	02036/LH	2010

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EXAMINER
JOO, JOSHUA

ART UNIT	PAPER NUMBER
2154	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 March 2007</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>14-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>14-30</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 January 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Detailed Action

Response to Remarks filed 3/26/2007

1.   Claims 14-30 are presented for examination.

Response to Arguments

2.   Applicant's arguments filed 3/26/2007 have been fully considered but they are not persuasive.

Applicant argued that:

3.   (1) Teng et al does not disclose, teach or suggest that the printer 50 transmits trouble type

information to the network server 49, or that the printer 50 accesses the network server 49 to obtain

restoration work information based on the trouble type information or to conducting an automatic

restoration.

4.   In response, Teng teaches,

   i)   Column 8, lines 17-20, "The spooler 74 may, in turn, poll the printer 50 to gather some of
           the requested information, such as the real time printer status or error information, when
           the printer 50 supports bi-directional communication."

   ii)   Column 8, lines 39-43, "allowing the user to issue system administration commands back
           to the network 49 for use in controlling the operation of the system spooler 74/printer 50,
           for example, to control page setup, printer scheduling, pausing, restarting, or canceling a
           print job, etc...

5.   According to the above cited passage i, printer error information (trouble type information) is

polled from the printer, and therefore, the printer transmits trouble type information.

        According to the above cited passage ii, Teng teaches of transmitting restoration work

information (commands such as restart, cancel print job) based on the trouble type information to the

relaying server (the network server), but Teng does not specifically teach of the printer obtaining, i.e. pull,

the commands from the network server.   Mui teaches of a printer that can "pull" commands from the

source (col. 9, lines 17-20). And, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the teachings of Teng and Mui for the printer to "pull" commands

from the network server, which would allow the printer to retrieve data when the printer is ready.

Furthermore, the printer conducts a process in accordance with the commands (restart, cancel

print job), and therefore, the printer performs an automatic restoration process.

6.   (2) There would be no motivation to combine the teachings of Motoyama with Teng et al. Since

Teng et al. does not teach a technique to conduct an automatic restoration process, there is no motivation

to apply the network configuration.

7.   In response, Teng was shown to teach a technique to conduct an automatic restoration process.

Furthermore, the examiner recognizes that obviousness can only be established by combining or

modifying the teachings of the prior art to produce the claimed invention where there is some teaching,

suggestion, or motivation to do so found either in the references themselves or in the knowledge generally

available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir.

1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Teng teaches that, "the network connections shown are exemplary and other means

of establishing a communications link between the computers may be used." (col. 5, lines 19-22). This

clearly suggests that Teng's network connection is not limited, and other network configurations may be

implemented in Teng's system, such as Motoyama's network. Motoyama's teachings as set forth in the

Office action dated 12/26/2006 would enhance the security of Teng's system by allowing only authorized

computers to access a network or other computer via the Internet (col. 4, lines 61-65).

8.   (3) Motoyama does not disclose, teach, or suggest a relaying server located outside the first and

second local networks and connected to the Internet for enabling the administrated apparatus and the

administrating apparatus to indirectly communicate with each other via the Internet.

9.   In response, Motoyama teaches of interconnected computers and routers, 12A-12I, in the Internet

(col. 4, lines 42-45). The interconnected computers are outside the first and second local networks (fig. 1.

Networks 16 and 52). Examiner considers any of the interconnected computers such as 12c that routes

data between the first and local networks as the relaying server.

10.   (4) Motoyama teaches away from using an internet connection for communication in matters

requiring urgent attention (column 9, lines 50-65). One of ordinary skill in the art would not have been

motivated to combine Motoyama with Teng et al to provide configuration in which restoration work

information is obtained via the Internet.

11.   In response, Motoyama teaches,

iii)   column 9, lines 50-65, "As with the business office machine, the remote device for
          controlling, diagnosing, and monitoring the machine may initiate either a connection-
          mode or connectionless-mode of communication. As with the machine, when the remote
          monitoring device needs to send urgent information or needs an urgent response from the
          machine, a connection-mode of communication is used. When time is not critical, the
          remote device may use a connectionless-mode of communication. For example, if new
          control software needs to be downloaded to the business office machine due to a bug in
          the program in the business office machine due to a bug in the program in the business
          office machine which causes a dangerous condition, a direction connection-mode of
          communication will be used. Also, as described with respect to the monitored device, if
          the monitoring device experiences a problem with one of the modes of communication,
          one of the other modes may be used.

Motoyama further teaches,

iv)   Column 5, lines 37-39, "the connection-mode of communication includes world wide
          web communications on the Internet."

According to the cited passage iii, a connection mode of communication is used for matters

requiring urgent attention. According to cited passage iv, the connection mode may be via the Internet,

and therefore, Motoyama does not teach away from using an Internet connection. Furthermore, Examiner

respectfully notes that the claims do not define the limits of trouble type information, and trouble type

information does not necessarily have to correlate to matters only requiring urgent attention.   Motoyama

also teaches that information not time critical may be sent via connectionless-mode, or use

connectionless-mode of communication, when connection-mode of communication is not properly

functioning (col. 9, lines 16-18).

12.   (5) Mui does not disclose, teach, or suggest communication through the Internet and firewalls, or

the transmission of trouble type information and obtaining of restoration work information in the manner

recited in independent claim 14.

13.   In response, the Examiner cannot show nonobviousness by attacking references individually

where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Mui teaches of a printer obtaining information, but does not specifically teach of the information

being restoration work information. Mui also does not specifically teach communication through the

Internet and firewalls, or the transmission of trouble type information. Motoyama teaches of

communication through the Internet and firewalls (fig. 1; col. 4, lines 61-67; col. 5, lines 31-41), and

Teng teaches of transmission of trouble type information and transmitting restoration work information

(col. 8, lines 16-20, 29-33, 39-44)

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

15.   Claims 14-23, 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teng et al,

US Patent #6,240,456 (Teng hereinafter), in view of Motoyama, US Patent #5,887,216 (Motoyama

hereinafter) and Mui et al. US Patent #6,362,870 (Mui hereinafter).

16.   As per claims 14, 25, and 28, Teng teaches substantially the invention as claimed including an

apparatus administration system, an administrated apparatus, and an administrating apparatus, Teng's

teachings comprising:

an administrated apparatus connected to the Internet (Fig. 2 printer 50);

an administrating apparatus connected to the Internet (Fig. 2 Network client 20); and

a relaying server connected to the Internet for enabling the administrated apparatus and the

administrating apparatus to indirectly communicate with each other via the Internet (Fig. 20 Network

server 49. col. 6, line 63-col. 7, line 9. Network server 49 accepts HTTP post request submitted by

network client 20. The system spooler 24 will then submit print job data to the printer 50.)

wherein the administrated apparatus comprises: a transmitting section which transmits trouble

type information to the relaying server through the Internet, wherein the trouble type information is

retrieved from the relaying server by the administrating apparatus through the Internet (col. 8, lines 10-20,

30-33. Network server 49 receives request. Gather printer status or error information from the printer,

and submit back to browser application.), receiving restoration work information based on the trouble

type information from the relaying server the Internet, and a control section which controls the

administrated apparatus to conduct an automatic restoration process in accordance with the restoration

work information (col. 8, lines 39-43. Issue commands for use in controlling the operation to the printer

50, e.g. page setup, restart, cancel print job.);

wherein the restoration work information is provided to the relaying server by the administrating

apparatus the Internet (col. 8, lines 38-43. Network client 20 issues system administration commands to

network server 49 for controlling operation of printer 50.); and

wherein the relaying server comprises a memory which stores the trouble type information

transmitted from the administrated apparatus (col. 8, lines 16-26. Spooler 74 gathers information from

printer. Server scripting component 72 receives information from the system spooler 74. Information is

stored at the network server for processing and transmission.).

17.   Teng teaches of an administrated apparatus, an administrating apparatus, and a relaying server

connected to the Internet, wherein any means of establishing a communications link between the

computers may be used (col. 5, lines 19-22). Teng also teaches that the administrated apparatus receives

restoration work information from the relaying server. However, Teng does not specifically teach the

network configuration wherein the administrated apparatus is located in a first local network and

connected to the Internet through a first firewall server of the first local network; the administrating

apparatus located in a second local network and connected to the Internet through a second firewall server

of the second local network; a relaying server located outside the first and second networks. Teng also

does not specifically teach the administrated apparatus accessing the relaying server to obtain the

restoration work information.

Motoyama teaches of an administrated apparatus, i.e. monitored device, located in a first local

network and connected to the Internet through a first firewall server of the first local network (col. 4, lines

26-30. Monitored device, e.g. printer, connected to network 16. col. 5, lines 1-2. Firewall 14 connected

between Internet 10 and network 16); an administrating apparatus, i.e. monitoring device, located in a

second local network and connected to the Internet through a second firewall server of the second local

network (col. 5, lines 2-6. Firewall 50 connected between Internet 10 and network 52. Workstation

connected to network 52.); and relaying computer located outside the first and second networks (col. 4,

lines 44-45. Internet includes a plurality of interconnected computers and routers.). .

18.   It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the teachings of Teng and Motoyama to provide the specific network configuration of

Motoyama because Teng states that any means of establishing a communications links may be used. The

above teachings of Motoyama would also enhance Teng's system by allowing secure communication and

authorized access between devices located in different networks (col. 4, lines 61-65).

19.   Teng and Motoyama still do not specifically teach of the administrated apparatus accessing the

relaying server to obtain the restoration work information.

       Mui teaches of a printer obtaining (pull) commands from a source (col. 9, lines 17-20).

20.   It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the teachings of Teng, Motoyama, and Mui for the printer to access and obtain commands

from a source. The teachings of Mui would improve the system of Teng and Motoyama by allowing the

printer to retrieve commands for further processing when the printer is ready, and reducing the burden of

the network server to route data in a system of a plurality of printers.

21.   As per claim 15, Teng does specifically teach the image forming apparatus administration system

of claim 14, further comprising a database which stores a plurality of items of trouble type information

and a plurality of items of restoration work information in correspondence with each other.

       Motoyama teaches of a database storing various information of the monitored device, wherein the

stored information is compared with received information to determine parameters to change on the

monitored device (col. 10, line 2-16, 49-55).

22.   It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the teachings of Teng, Motoyama, and Mui for the system to comprise a database storing

various information of the monitored device, wherein the stored information is compared with received

information to determine appropriate parameters to change on the monitored device. The teachings of

Motoyama would further improve the system of Teng, Motoyama, and Mui by allowing identification of

the error information and allowing appropriate changes or commands issued in respect to the error

information.

23.   As per claim 16, Teng does not specifically teach the image forming apparatus administration

system of claim 15, wherein each of the items of trouble type information is classified as corresponding to

one of a restorable trouble and non-restorable trouble, and the stored items of restoration work

information corresponding to the items of trouble type information classified as being restorable.

Motoyama teaches of a monitored device transmitting results of a diagnostic of a problem, and

determining if the problem can be corrected by changing parameters (col. 17, lines 41-50).

24.   It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the teachings of Teng, Motoyama and Mui to determine if received problem are correctable,

i.e. restorable. The teachings of Motoyama would further improve the system of Teng, and Motoyama,

and Mui by attempting to correct errors when the errors are classified as restorable before taking

additional actions, and preventing an attempt to correct a non-restorable error, which would unnecessary

use resources and time.

25.   As per claim 17, Teng, Motoyama, and Mui taught the image forming apparatus administration

system of claim 15 which includes obtaining restoration information by the printer. Teng teaches wherein

the relaying server provides the corresponding restoration information for retrieval by the image forming

apparatus based on the trouble type information received from the image forming apparatus (col. 8, lines

29-43. Transmit commands back to the printer to control the operation of the printer, e.g. page setup,

canceling, restarting.).

26.   As per claim 18, Teng does not specifically teach the apparatus administration system of claim

16, wherein the relaying server judges whether or not the administrated apparatus is able to conduct the

automatic restoration process by itself by accessing the database.

        Motoyama teaches of determining whether the monitored device may perform self-diagnostic

capability to analyze and correct a problem (col. 17, lines 12-14, 26-30.).

27.   Motoyama does not explicitly teach of a database. However, a database would be required to

obtain parameters for analysis and correction of problems. It would have been obvious to one of ordinary

skill in the art at the time the invention was made to combine the teachings of Teng, Motoyama, and Mui

to determine whether or not the administrated apparatus is able to conduct automatic restoration by itself

by accessing a database. The teachings of Motoyama would further improve the efficiency of the system

of Teng, Motoyama, and Mui by reducing the time required to correct the problem because the printer

would not have to wait for correction parameters.

28.   As per claims 19, 27, and 29, Teng, Motoyama, and Mui taught the image forming apparatus

administration system of claim 14. Teng further teaches wherein when the automatic restoration process

is carried out, the transmitting section of the image forming apparatus transmits result information

specifying a result of the automatic restoration process to the relaying server (col. 8, lines 17-20. Printer

transmits real time printer status or error information.).

29.   As per claims 23 and 26, Teng does not specifically teach the apparatus administration system of

claim 14, wherein the image forming apparatus further comprises: a detecting section which detects when

a trouble occurs in the image forming apparatus; and a judging section which determines a kind of the

trouble; and wherein the image forming apparatus transmits the trouble type information in accordance with the determined kind of the trouble.

Motoyama teaches of a monitored device detecting when a trouble occurs in the monitored device (col. 8, line 61-col. 9, line 4), determining the kind of trouble (col. 9, lines 2-10), and transmitting the trouble type information in accordance with the determined kind of trouble (col 9, line 2-10, 19-24).

30.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Teng, Motoyama, and Mui for the monitored device, i.e. printer, to detect when a trouble occurs in the monitored device, determining the kind of trouble, and transmitting the trouble type information in accordance with the determined kind of trouble. The above teachings of Motoyama would further improve the system of Teng, Motoyama, and Mui by determining sufficient information used to analyze and correct the problem, and providing a type of connection based on the type of problem, i.e. connection-mode for high priority event (col. 8, lines 59-64).

31.   As per claim 20, Teng, Motoyama, and Mui taught the apparatus administration system of claim 19. Teng further teaches wherein the administrating apparatus accesses the relaying server to obtain the result information (col. 7, lines 10-15; Col. 8, lines 10-20. Poll printer for real time printer status or error information.).

32.   As per claim 21, Teng teaches the image forming apparatus administration system of claim 15, wherein the relaying server comprises the database (col. 8, lines 15-17, 22-26. Gather requested information and generate HTML page. Database would be needed to formulate requests and process requests. col. 8, lines 55-57. Commands issued to system spooler 74.).

33.   As per claim 22, Teng teaches the apparatus administration system of claim 15, wherein the administrating apparatus comprises the database (col. 4, lines 9-13, 29-30. Network client comprises a hard disk. col. 6, lines 22-28. Formulate request for network server.).

34.   Claims 24 and 30 are rejected under 35 U.S.C..103(a) as being unpatentable over Teng, Motoyama, and Mui, in view of Wiklof et al, US Patent #6,618,162 (Wiklof hereinafter).

35.   As per claims 24 and 30, Teng does not specifically the apparatus administration system of claim 14, wherein the restoration work information is periodically updated.

Wiklof teaches of continually updating restoration work information, i.e. printer's software, wherein the software may include bug fixes (col. 5, lines 22-25; Col. 6, lines 26-29).

36.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Teng, Motoyama, Mui, and Wiklof to continually update restoration work information. Wiklof's teachings would enhance the system of Teng, Motoyama, and Mui by providing resources for the printer to correct new problems, and allowing for the upgrading of the printer's performance.

Conclusion

37.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the mailing date of this final action.

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER

38.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be

reached on Monday to Friday 7 to 4.

39.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this

application or proceeding is assigned 571-273-8300.

40.   Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

April 12, 2007
JJ